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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,921	07/03/2000	William Patrick Flanagan	RD-27,270/USA	4350

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH CENTER
PATENT DOCKET RM. 4A59
PO BOX 8, BLDG. K-1 ROSS
NISKAYUNA, NY 12309

EXAMINER

SINES, BRIAN J

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 10/03/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

10

Office Action Summary

Application No.

09/609,921

Applicant(s)

FLANAGAN ET AL.

Examiner

Brian J. Sines

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33-38 is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 30-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 30 – 38 are directed to an allowable method. Pursuant to the procedures set forth in the Official Gazette notice dated March 26, 1996 (1184 O.G. 86), claims 14 – 20 and 33 – 38, directed to the apparatus and the patentable method, previously withdrawn from consideration as a result of a restriction requirement, claims 14 – 20 and 33 – 38 are now subject to being rejoined. Claims 14 – 20 and 33 – 38 are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Since all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement made in Paper No. 4 is hereby withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by DeWitt et al. (U.S. Pat. No. 5,714,127 A). As shown in figure 4, DeWitt et al. teach an apparatus comprising: a reaction substrate (reservoir block, 15) comprising at least one substrate reservoir (reaction well, 16); and a head plate (manifold, 20) positioned to provide a sealed headspace adjacent to the substrate reservoir. DeWitt et al. teach that the reservoir block (15) and the manifold (20) may each be operated at different

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temperatures (col. 13, lines 52 – 61). Dewitt et al. teach that the headspace of the manifold has an adjustable pressure in order to control the gas flow through pressurization (col. 9, lines 61 – 67; col. 10, lines 1 – 14; figures 3 & 4). DeWitt et al. anticipate the incorporation of a controller or computer for controlling temperature (col. 15, lines 1 – 32; col. 16, lines 29 – 56; col. 20, lines 18 – 36; col. 87, lines 13 – 28). DeWitt et al. teach that the gas source includes at least one gas, such as nitrogen or argon (col. 13, lines 54 – 56; col. 17, lines 21 – 24). Dewitt et al. teach that ports (23) allow control over the atmosphere within the manifold (20) (col. 9, lines 61 – 67; col. 10, lines 1 – 6).

It should be noted that these claims are directed to an apparatus. Therefore, it is the structural limitations of the apparatus, as recited in the claims, which are considered in determining the patentability of the apparatus. These claims recite various process or use limitations and are accorded no patentable weight to an apparatus. For example, these claims recite how the apparatus is to be operated, such as the operating pressure or temperature, or what is intended to be used with the apparatus, such as a specific reactant system and its associated characteristics, which do not impart any limitations to define the structure of the apparatus being claimed. Process limitations do not add patentability to a structure, which is not distinguished from the prior art. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the

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intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 21 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWitt et al. (U.S. Pat. No. 5,714,127 A). Regarding claim 21, DeWitt et al. teaches all of the structure provided in the claimed method, which merely recites the conventional operation of that structure. It would have been obvious to one of ordinary skill in the art to perform the method recited in the instant claim upon the apparatus of DeWitt et al., as such is the intended operation of that apparatus. Regarding claim 22, DeWitt et al. teach that the gas flowing through the headspace of the manifold (20) may be heated (col. 13, lines 52 – 61). Regarding claim 23, DeWitt et al. teach the incorporation of a

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controller or computer for controlling temperature (col. 15, lines 1 – 32; col. 16, lines 29 – 56; col. 20, lines 18 – 36; col. 87, lines 13 – 28). Regarding claim 24, DeWitt et al. teach the use of reactant systems comprising reactants dissolved in a liquid (col. 13, lines 41 – 53). Regarding claims 25 – 27, Dewitt et al. teach that the headspace of the manifold has an adjustable pressure in order to control the gas flow through pressurization (col. 9, lines 61 – 67; col. 10, lines 1 – 14; figures 3 & 4). Therefore, it would have been obvious to one of ordinary skill in the art to use a pressure above at least 1 atmosphere in order to induce gas flow through the apparatus. Regarding claims 28 and 29, DeWitt et al. teach that the reactant system may be gaseous, or partially embodied in a gas, and be provided in the headspace of the manifold (20) (col. 9, lines 61 – 67).

Allowable Subject Matter

Claims 33 – 38 are allowed.

Claims 30 – 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

The cited prior art neither teach or fairly suggest a method for the rapid screening of potential reactants, catalysis and reaction conditions, wherein the method further incorporates the use of a plurality of reactant systems partially embodied in a liquid film and the liquid film having a defined thickness L , which is sufficient to allow a

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reaction to be independent of the evaporation of the liquid film and the mass transport rate of a gas into the liquid film.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zuellig et al. (U.S. Pat. No. 6,126,904 A) teach an apparatus and methods for the synthesis of combinatorial chemical libraries. Kilcoin et al. (U.S. Pat. No. 6,190,619 B1) teach systems and methods for the parallel synthesis of chemical compounds. Antonenko et al. (U.S. Pat. No. 5,866,342 A) teach systems and methods for synthesizing various compounds on solid supports. Horman et al. (U.S. Pat. No. 6,258,323 B1) teach an apparatus and method used in the multiple synthesis of chemical compounds under various reacting conditions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines whose telephone number is (703) 305-0401. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

BJS
September 30, 2002


Jill Warden
Supervisory Patent Examiner
Technology Center 1700